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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517.334	12/09/2004	Futoshi Osawa	123751	2948

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EXAMINER
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DO. ROBERT C

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/517,334

Applicant(s)

OSAWA ET AL.

Examiner

Robert C. Do

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/9/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: See Continuation Sheet.

Continuation of Attachment(s) 6). Other: Machine translation of 2003-050426.

## **DETAILED ACTION**

### ***Claim Objections***

Claim 1 is objected for the following reasons:

- Claim 1, recites on line 9 "the back surface", since it is "the back surface" first appearance, it should be changed to "a back surface".

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 3, 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Moshrefzadeh et al. (U.S Patent Nmbre 6,417,966).

Moshrefzadeh et al. teaches the following claimed elements:

- A Fresnel lens sheet (Fig. 10, 1022) having a front face surface facing the viewer.
- A shading sheet (1006, 1004, and 1002) placed contiguously with the front surface of the Fresnel lens sheet (1022).
- The shading sheet (1006, 1004, and 1002) is provided with shading elements (1004).
- The shading elements transmit external light fallen on the shading sheet at an incident angle  $\theta$  meeting the expression:  $\theta < 24 + .018 * F$ . (Fig. 11

illustrates the light ray 1102 transmitted without being deviated. This light ray 1102 is fallen orthogonally to the surface of the shading sheet and meets the center portion of the shading element 604. The incident angle of this specific illustration of light ray 1102 is at zero (i.e.  $\theta=0$ ), thus clearly meets the claimed expression  $0 < 24 + .18F$

- The shading sheet (1006, 1004, and 1002) having a rib group (area between 1005) including a plurality of ribs extending in a direction and the shading elements (1004).
- The shading elements (1004) having total reflection facets (left and right sides of 1004), with the rib capable of reflecting image light (light path in Fig. 10).
- The shading elements (1004) are light-absorbing parts (Column 15, Lines 30-33).
- The transmission screen where the shading sheet is coated with an antireflection layer (Column 21, lines 16-20).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

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the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moshrefzadeh et al. in view of Goto et al. (Japanese Patent Publication number 2003-050426).

Moshrefzadeh et al. teaches the claimed elements shown above.

Moshrefzadeh et al. does not teach:

- That the light –absorbing material is prepared by dispersing light – absorbing particles in a substantially transparent second resin have a refractive index smaller than that of a first resin forming the ribs.

However Goto et al. teaches:

- That the light –absorbing material is prepared by dispersing light – absorbing particles in a substantially transparent second resin have a refractive index smaller than that of a first resin forming the ribs.

(Paragraph [0004] of 2003-050426).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to disperse the light absorbing particles as taught

by Goto to make the shading elements in Moshrefzadeh in order to obtain the high image of contrast (Paragraph [0004] of 2003-050426).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moshrefzadeh et al. in view of Yoshida et al. (Japanese Patent Publication number 11-223879).

Moshrefzadeh et al. discloses all of the claimed elements shown above.

Moshrefzadeh et al. does not teach the following:

- A transmission screen wherein a lenticular lens sheet is sandwiched between the shading sheet and the Fresnel lens sheet.

However, Yoshida et al. teaches:

- A transmission screen wherein a lenticular lens sheet is sandwiched between the shading sheet and the Fresnel lens sheet (Fig. 10, Lenticular Sheet 3 sandwiched between Fresnel Lens Sheet 2 and Shading Sheet 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a lenticular lens sheet of Yoshida et al. to the transmission screen of Moshrefzadeh et al. in order to diffuse incident light and to extend an angle of visibility.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Do whose telephone number is (571)272-

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1387. The examiner can normally be reached on Monday Through Friday, 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diane Lee can be reached on (571)272-2399. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RCD

  
DIANE LEE  
SUPERVISORY PATENT EXAMINER